

ABSTRACT

THE RELATIONSHIP BETWEEN DURATION OF TYPE 2 DIABETES MELLITUS AND DIABETIC SENSORY NEUROPATHY IN PATIENTS WITH DIABETES MELLITUS AT THE DLANGGU HEALTH CENTER

By : Hidayah Fitri Kusuma Wardhani

Diabetes melitus tipe 2 (DMT2) was a chronic disease that could cause diabetic sensory neuropathy (DSN) due to chronic hyperglycemia. Duration of type 2 diabetes mellitus was considered to play a role in increasing the risk of developing DSN, which could lead to decreased protective sensation in patients' feet. This study aimed to determine the relationship between duration of type 2 diabetes mellitus and diabetic sensory neuropathy in patients with diabetes mellitus at Dlanggu Community Health Center, Mojokerto Regency. This study used a correlational analytic design with a cross-sectional approach. The population consisted of all active Prolanis participants with diabetes mellitus at Dlanggu Community Health Center, totaling 51 people. The sample included 40 respondents who met the inclusion and exclusion criteria. Data on duration of type 2 diabetes mellitus were obtained through questionnaires and medical records, while DSN was assessed using the Ipswich Touch Test (IpTT) and an observation sheet. Data were analyzed using the Spearman Rho test. The results showed that most respondents with duration of type 2 diabetes mellitus ≥ 5 years experienced loss of protective sensation (LOPS), indicating DSN, totaling 16 respondents (80%). The Spearman Rho correlation test showed a significant relationship between duration of type 2 diabetes mellitus and DSN ($p\text{-value} = 0.003 < 0.05$; $r = 0.455$). The longer the duration of type 2 diabetes mellitus, the higher the risk of developing diabetic sensory neuropathy due to prolonged chronic hyperglycemia

Keywords: *duration of type 2 diabetes mellitus, diabetic sensory neuropathy, ipswich touch test*

ABSTRAK

HUBUNGAN *DURATION OF TYPE 2 DIABETES MELLITUS* DENGAN NEUROPATI SENSORIK DIABETIK PADA PASIEN DIABETES MELLITUS DI PUSKESMAS DLANGGU

Oleh : Hidayah Fitri Kusuma Wardhani

Diabetes melitus tipe 2 (DMT2) merupakan kondisi penyakit kronis yang dapat menyebabkan komplikasi neuropati sensorik diabetik (NSD) akibat hiperglikemia kronis. *Duration of type 2 diabetes mellitus* diduga berperan dalam meningkatkan risiko terjadinya NSD yang dapat menyebabkan penurunan sensasi protektif pada kaki penderita. Penelitian ini bertujuan untuk mengetahui hubungan antara *duration of type 2 diabetes mellitus* dan neuropati sensorik diabetik pada pasien DM di Puskesmas Dlanggu Kabupaten Mojokerto. Desain penelitian ini menggunakan analitik korelasional dengan pendekatan *cross-sectional*. Populasi penelitian ini meliputi seluruh pasien diabetes melitus peserta Prolanis yang aktif di Puskesmas Dlanggu sebanyak 51 orang. Sampel penelitian ini berjumlah 40 responden yang sesuai dengan kriteria inklusi dan eksklusi. Variabel *duration of type 2 diabetes mellitus* diukur melalui kuesioner dan atau rekam medis, sedangkan NSD dilakukan menggunakan *Ipswich Touch Test* (IpTT) dan lembar observasi. Analisis data menggunakan uji *Spearman Rho*. Hasil penelitian menunjukkan bahwa sebagian besar responden dengan *duration of type 2 diabetes mellitus* ≥ 5 tahun mengalami *loss of protective sensation* (LOPS) atau mengalami NSD sebanyak 16 responden (80%). Hasil uji korelasi *Spearman Rho* menunjukkan adanya hubungan antara *duration of type 2 diabetes mellitus* dengan NSD ($p\text{-value} = 0,003$ ($<0,05$) dan nilai $r = 0,455$). Semakin lama *duration of type 2 diabetes mellitus*, maka semakin meningkatkan risiko terjadinya NSD akibat paparan hiperglikemia kronis.

Kata kunci : *duration of type 2 diabetes mellitus*, neuropati sensorik diabetik, *ipswich touch test*